

You should hand in your script files.

- 1) (6 pts) Use MATLAB to create a surface plot, a contour plot, a three-dimensional contour plot and a filled contour plot of the function

$$z = \sin(x + y) \cos(2(x - y))$$

over the domain $x \in [-\pi, \pi], y \in [-2\pi, 2\pi]$. Make sure to choose a grid fine enough that the plots look smooth.

- 2) (4 pts) The data file `hw21.dat` contains three columns of numbers. The first is a set of x -coordinates, the second is a set of y -coordinates and the third is a set of z -coordinates. Write a script that will read these from the data file, then plots the surface resulting from the triangulation of the x - y points.